GOVERNMENT OF INDIA
ENVIRONMENT, FORESTS AND CLIMATE CHANGE
LOK SABHA

UNSTARRED QUESTION NO:3232
ANSWERED ON:17.03.2015
SHIFTING OF GLACIERS
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Will the Minister of ENVIRONMENT, FORESTS AND CLIMATE CHANGE be pleased to state:

(a) whether the Government is aware of the shifting of Glaciers in the Himalayan region due to climate change;

(b) if so, the direction of the shifting of major glaciers;

(c) whether the shifting of glaciers is likely to cause far reaching effects on climate change; and

(d) if so, the details thereof and the reaction of the Government thereto?

Answer

MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE. (SHRI PRAKASH JAVADEKAR)

(a)& (b) The majority of Himalayan glaciers are retreating; not shifting. The recession of the glaciers is currently a global phenomenon. The recession of glaciers is the retreating of the snout of the glacier in the upstream direction and is not the shifting of the glaciers as such. The rate of recession varies depending on the orientation and aspect of the glacier. However, it has been noticed that the orientation of the glaciers is an important factor in rate of recession and elevation of the snout. Glaciers located on the southern slopes of the Himalayas have shown higher retreat and as such the snouts of these glaciers are located at higher elevations. It may also be noted that the variable rate of recession in different climatic zones can be attributed not only to orientation but to several other factors like changing snowfall pattern, rising temperatures as well as macroclimate, orography, size of the glacier, nature of nourishment, etc.

(c)& (d) The shifting of glaciers in terms of their advance and retreat is a long term process which may have impact on the climate of the region on a long run. However, it is postulated that continuous retreat and rising temperature will lead to rising tree line in the pro-glacial regions.

Recognizing the challenges of climate change, Government of India is implementing the National Action Plan on Climate Change, which includes eight national missions. National Mission for Sustaining the Himalayan Ecosystem is one amongst the eight national missions under NAPCC which aims at evolving management measures for sustaining and safeguarding the Himalayan glaciers and mountain ecosystem through enhanced monitoring of Himalayan ecosystem by establishment of monitoring network, promoting community based management, human resource development, and strengthening regional cooperation.